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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,949	05/22/2001	Brian M. Hackworth	112056-0012	9748

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EXAMINER
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KE, PENG

ART UNIT	PAPER NUMBER
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2174

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/862,949	HACKWORTH, BRIAN M.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Peng Ke	2174	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-28 and 54-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-28 and 54-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is responsive to communications: Amendment filed on 1/8/07.

Claims 1, 3-28 and 54-76 are pending in this application. Claims 1, 14, 19, 25, 26, 54, 61, 68, 69, 75, and 76 are independent claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7, 8, 13-17, 19, 20, 23-28, 54, 55, 59, 61, 62, 66, and 68-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (hereinafter Chu), US Patent 6,346,954 in view of Pisello et al. (hereinafter Pisello) US Patent 5,678,042.

As per claim 1, Chu teaches a system for reporting information related to predetermined storage volumes maintained on computer storage devices, comprising:

Each volume defining a logical arrangement of storage space on one or more the storage device, the storage devices accessible over a computer network; (figure 7, items 106, 108, and 110)

An interface to enable assigning the volumes to a plurality of groups of volumes, each volume assigned to a selected group;

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A monitor process that identifies a desired group of the plurality of groups (figure 5, item 72; column 8, lines 10-20) and retrieves a statistical information from volumes of the desired group; and (figure 7, item 90 “array A”, column 8, lines 46-55)

However, Chu fails to teach an event process that determines identities of interested parties for a predetermined event condition with respect to the volumes based upon the statistical information;

and a reporting process that organizes and displays the statistical information with respect to the volumes associated with the desired group to interested parties

Pisello teaches an event process that determines identities of interested parties for a predetermined event condition with respect to the volumes based upon the statistical information; (see Pisello; column 24, lines 30-44; A backup policy-enforcer is an event process)

and a reporting process that organizes and displays the statistical information with respect to the volumes associated with the desired group to interested parties. (see Pisello, column 25, lines 60-column 26, lines 40; The interested parties in this case are the local administrator)

It would have been obvious to an artisan at the time of the invention to include Pisello’s teaching with method of claim Chu in order to shift burden of system administration from a human operator to a more centralized automated process.

As per claim 3, which is dependent on claim 2, Chu and Pisello teach claim 2. Chu further teaches the system wherein the event conditions include parameters of the volume and an associated device of the volume that exceed threshold levels (unusable/usable space) (col. 7, lines 20-31).

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As per claim 4, which is dependent on claim 3, Chu and Pisello teach claim 3. Chu further teaches the system wherein the parameters include at least one of a central processing utilization level, a storage disk free space, a storage disk used space, or an environmental condition and operational status (col. 7, lines 52-65).

As per claim 5, Chu and Pisello teaches the system of claim 1. Pisello further teach the system wherein the event process included is adapted to e-mail event information to at least some of the interested parties. (see Pisello, column 6, lines 30-40; send message to computer is email.)

As per claim 7, which is dependent on claim 3, Chu and Pisello teach claim 3. Pisello further teaches the system further comprising a database that retains information with respect to the interested parties and the threshold levels for the parameters (see Pisello column 27, The urgency is a threshold level).

As per claim 8, which is dependent on claim 1, Chu and Pisello teaches claim 1. Chu further teaches the system wherein each of the volumes are attached to each of a plurality of filers respectively (Fig. 3, 42, 44, 46).

As per claim 13, which is dependent on claim 1, Chu and Pisello teaches claim 1. Chu further teaches the system wherein the reporting process is adapted to consolidate the statistical information from one or more volumes on one or more of the volumes on one or more storage appliances into the group (data distribution mode) (col. 7, 39-52).

As per claim 14, Chu teaches a graphical user interface for use with a management station or client personal station attached to a network having storage volumes, the graphical user interface comprising:

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a display window that enables at least one of the volumes to be selectively associated with a desired group of volumes, the volumes associated with a plurality of groups of volumes, each volume including a luster of physical storage disks and defining a logical arrangement of storage space (figure 7, items 106, 108, and 110) and

a display window that shows information related to performance and status of the volumes of a selected group of plurality of groups (figure 5, item 72; column 8, lines 10-20) based upon criteria selected by the user (figure 7, item 90 "array A" column 8, lines 46-55).

However, Chu fails to teach wherein the information includes an indication of events in which an operational parameter exceeds a threshold predetermined for the desired group;

Pisello teaches wherein the information includes an indication of events in which an operational parameter exceeds a threshold predetermined for the desired group; (see Pisello; column 24, lines 30-44; A backup policy-enforcer is an event process)

It would have been obvious to an artisan at the time of the invention to include Pisello's teaching with method of claim Chu in order to shift burden of system administration from a human operator to a more centralized automated process.

As per claim 15, which is dependent on claim 14, Chu and Pisello teach claims 14. Chu further teaches the graphical user interface wherein the information includes at least one of central processing unit usage, volume disk free space, volume disk used space; environmental conditions; and general operational status (col. 12, lines 35-44).

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As per claim 16, which is dependent on claim 14, Chu and Pisello teach claims 14. Chu further teaches the graphical user interface wherein the events include alerts that are color-coded based upon severity of a problem (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2-13).

As per claim 17, Chu and Pisello teaches the method of claims 15. Pisello further teach the graphical user interface further comprising a link box that directs a user to network or internet- based utilities in connection with the information. (see Pisello, column 6, lines 30-40; modern is a link box)

As per claim 19, Chu teaches a method for reporting information related to volumes maintained on at least one computer storage device, comprising the steps of:

Identifying a plurality of groups of the volumes (figure 5, item 72; column 8, lines 10-20) each group independent of physical arrangement of the computer storage devices in a network;

retrieving statistical information with respect to he volumes, each volume including a cluster of physical storage disks and defining a logical arrangement of storage space; (figure 7, items 106, 108, and 110)

However, Chu fails to teach

Identifying interested parties associated with each group.

Organizing and displaying the statistical information with respect to the volumes associated with the group to the interested parties.

Pisello teaches Identifying interested parties associated with each group. (see Pisello, column 27, lines 10-35, The rule process must decides whether the interested party is artificial administrator, scheduler, or one or more human administrators)

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Organizing and displaying the statistical information with respect to the volumes associated with the group to the interested parties. (see Pisello, column 25, lines 60-column 26, lines 40; The interested parties in this case are the local administrator)

It would have been obvious to an artisan at the time of the invention to include Pisello's teaching with method of claim Chu in order to shift burden of system administration from a human operator to a more centralized automated process.

As per claim 20, Chu and Pisello teach the method of claim 19. Pisello further teach the system wherein the event process included is adapted to e-mail event information to at least some of the interested parties. (see Pisello, column 6, lines 30-40; send message to computer is email.)

As per claim 23, Chu and Pisello teach claim 19. Chu further teach the method wherein the step of organizing and displaying includes displaying event information related to predetermined statistical information that exceeds desired parameters (physical drive failure may be indicate) (l. 9, lines 61-col. 10, lines 1-5).

As per claim 24, which is dependent on claim 23. it is of the same scope as claim 16. Supra.

As per claim 25, it is rejected with the same rationale as claim 19. Supra.

As per claim 26, Chu teaches a method for organizing and displaying information with respect to one or more volumes on one or more storage appliances attached to a network, the method comprising the steps of:



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establishing a plurality of groups (figure 5, item 72; column 8, lines 10-20) of one or more of the volumes, each group based upon predetermined reporting criteria, (figure 7, item 90 “array A” column 8, lines 46-55) each volume including a cluster of physical storage disks and defining a logical arrangement of storage space, each volume having statistical information associated therewith; (figure 7, items 106, 108, and 110)

However Chu fails to teach consolidating the statistical information collected from a selected group of the plurality of groups with respect to the volumes in the selected group for display to interested parties.

Pisello teaches consolidating the statistical information collected from a selected group of the plurality of groups with respect to the volumes in the selected group for display to interested parties. (see Pisello, column 25, lines 60-column 26, lines 40; The interested parties in this case are the local administrator)

It would have been obvious to an artisan at the time of the invention to include Pisello’s teaching with method of claim Chu in order to shift burden of system administration from a human operator to a more centralized automated process.

As per claim 27, which is dependent on claim 26, it is of the same scope as claim 3. Supra.

As per claim 28, Chu and Pisello teach the method of claim 27. Pisello further teaches notifying at least one of the interested parties based upon the event condition using an electronic message. (see Pisello, column 6, lines 30-40; send message to computer is email.)

As per claim 54, it is rejected under the same rationale as claim 19. Supra.

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As per claims 55, it is of the same scope as claim 5. Supra.

As per claim 59, Chu teaches method of claim 54. Chu further teaches directing a user to network based utilities in connection with the information. (figure 7, items 106, 108, and 110)

As per claim 61, it is rejected under the same rationale as claim 19. Supra.

As per claim 62, which is dependent on claim 61. It is of the same scope as claim 3. Supra.

As per claim 66, it is of the same scope as claim 59. Supra.

As per claim 68, it is rejected under the same rationale as claim 19. Supra.

As per claim 69, it is rejected with the same rationale as the combination of claims 19 and 23. Supra.

As per claim 70, it is of the same scope as claim 23. Supra.

As per claim 71, Chu and Pisello teaches the method of claim 70. Pisello further teaches wherein the threshold values are included in the group consisting of exceed thresholds for device or filer central processing unit (CPU) Utilization, device environmental conditions (temperature, etc.), volume free space, disk free space and NFS operations per second. (see column 16, lines 29-45)

As per claim 72, Chu and Pisello teaches the method of claim 69. Pisello further teaches wherein the reporting parameters include a list of interested parties to whom reporting will be directed for a reporting group. (see Pisello; column 27, lines 20-35, it is inherent that multiple human administrator's contacts are stored on a list)

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As per claim 73, Chu and Pisello teaches the method of claim 69. Pisello further teaches selecting a reporting group for retrieval of statistical information; and

Retrieving statistic information with respect to the selected reporting groups. (see Pisello, column 25, lines 60-column 26, lines 40)

As per claim 74, Chu and Pisello teaches the method of claim 73. Pisello further teaches the organizing and displaying the statistical information to interested parties associated with the selected reporting groups.

As per claims 75 and 76, they are rejected with the same rationale as the combination of claims 19 and 23. Supra.

Claims 6, 9-12, 18, 21, 22, 56-58, 60, 63-65, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu, US Patent 6,346,954 in view of Pisello, US Patent 5,678,042 further in view of Salas et al. US Patent 6,233,600.

As per claim 6, Chu and Pisello teaches method of claim 5. However, he fails to teach the system wherein the e-mail of the event information includes web links for use by the interested parties. (see Pisello, column 6, lines 30- 40; message link is web link)

Salas teaches includes web links for use by the interested parties. (see Salas, column 1, lines 65-column2, lines 18)

It would have been obvious to an artisan at the time of the invention to include Salas teaching with method of Chu and Pisello in order to create a networked, collaborative work environment.

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As per claim 9, Chu and Pisello teaches the system of claim 1. Chu further teaches a command process that reports the statistical information to at least some of the interested parties (col. 4, lines 28-31, operational status. They fail to teach the process of generating web pages.

Salas teaches generating a web page. (see Salas, column 1, lines 65-column2, lines 18)

It would have been obvious to an artisan at the time of the invention to include Salas teaching with method of Chu and Pisello in order to create a networked, collaborative work environment.

As per claim 10, Chu, Pisello, and Salas teach the system of claim 9. Salas further teaches the web pages are constructed and arranged as graphical user interfaces that enable display of the statistical information in a plurality of predetermined windows and boxes within the windows based upon selection criteria entered by the interested parties. (see Salas, column 1, lines 65-column2, lines 18)

As per claim 11, Chu, Pisello, and Salas teach the system of claim 10. Chu further teaches alerts displayed on the graphical user interface based upon problems identified by the monitor process with respect to the volumes or devices associated with the volumes. (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2-13)

As per claim 12, Chu, Pisello, and Salas teach the system of claim 11. Chu further teaches wherein the alerts are color-coded based upon severity of the problems (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2-13).

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As per claim 18, Chu, Pisello, and Salas teach the graphical user interface as set forth in claim 15. Salas teaches display window is formatted as web page and is displayed on a web browser. (col. 10, lines 2-13)

As per claim 21, which is dependent on claim 20, it is of the same scope as claim 6. Supra.

As per claim 22, which is dependent on claim 21, it is of the same scope as claim 10. Supra.

As per claims 56, 57, and 60, they are of the same scope as claims 9, 10, and 18 respectively. Supra.

As per claim 58, it is of the same scope as claim 17. Supra.

As per claims 63- 64, and 67, they are of the same scope as claim 5, 9, 10, and 18 respectively. Supra.

As per claim 65, it is of the same scope as claim 17. Supra.

### ***Response to Argument***

Applicant's arguments with respect to claims 1, 3-28 and 54-76 have been considered but are deemed to be moot in view of the new grounds of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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